

1. *N. compacta* Hungerford. Head and pronotum of female; 2. *N. penecompacta* n. sp. Head and pronotum of female; 3. *N. penelobata* n. sp. Male genital capsule; 4. *N. penecompacta* n. sp. Abdominal venter of female; 5. *N. penelobata* n. sp. Abdominal venter of female; 6. *G. emburyi* n. sp. Dorsum of abdomen of male; 7. *G. emburyi* n. sp. Male genital capsule; 8. *G. emburyi* n. sp. Face of female, 9. *G. emburyi* n. sp. Inside view of male pala; 10. *G. serrulata* (Uhler). Face of female.

A NEW HYDROMETRA FROM NEW CALEDONIA AND AUSTRALIA¹

BY H. B. HUNGERFORD

Hydrometra risbeci Hungerford, n. sp.

Length, 8.5 mm. to 11.1 mm.; females longer than the males. General color varying from yellowish brown to brown. Pronotum bearing a median longitudinal silvery stripe that may be continued forward on the post-ocular part of head; a curved silvery band above the anterior acetabula, and a submarginal longitudinal brown band on metathorax and abdomen. Venter of head, thorax and abdomen frosted. In winged forms the hemelytra are brown with a median longitudinal silvery stripe. In wingless forms the abdominal tergites are shiny reddish brown in males and at least medianly so in females, except the last tergite which is pubescent laterally in males and entirely pubescent in females.

Head: Length 80 units (holotype), 86 units (allotype). The ratio of the antecular part of the head to the post-ocular part is given by the formula, AO:PO::49:25 (holotype), 54:25 (allotype). Dorsal interocular groove short, less than the diameter of an eye; ventral interocular groove not longer than the eye; clypeus connate; rostrum long almost reaching the anterior margin of pronotum; beginning with the basal the lengths of the segments of the antennæ are in the following ratio: 15:30:60:32 (holotype), 15:30:60:37 (allotype).

Pronotum: Length 45 units (holotype), 50 units (allotype). An encircling row of pits parallel to the anterior margin and about two units from it; posterior lobe with a median row of pits, a few pits near posterior end and about four antemarginal pits behind acetabula of first pair of legs.

Wings: Hemelytra of holotype fully developed, exposing the end of last abdominal tergite. Hemelytra of allotype minute.

Coxæ: The distance between the first and second coxæ is to that between the second and third coxæ as 30:42 (holotype);

¹ Contribution from Department of Entomology, University of Kansas, Lawrence, Kansas.

anterior and middle acetabula with two pits anterior to the cleft and two pits posterior to it; the posterior acetabulum has one pit on top.

Femora: Anterior femora of the male extending to base of antennæ, those of female relatively longer; posterior femora of male surpassing the middle of first genital segment, of female attaining rear margin of the fifth abdominal segment.

Abdomen: Length 136 units (holotype), 160 (allotype). Two backward directed spine-like processes on anterolateral margin of sixth ventral segment of male and a pair of hair tufts one-third in front of rear margin on slightly swollen area; first genital of male longitudinally swollen beneath and depressed laterally; above the segment is elongate with the sides gradually diverging to the rear; the terminal dorsal process short and sharp, not over one-sixth the length of the segment; sixth abdominal tergite of female broader behind than in front, the terminal dorsal process slightly more than a third the length of the segment which bears it.

Holotype, allotype, and one paratype labeled "New Caledonia, May 23, 1931, Jean Risbec" in Francis Huntington Snow Entomological Museum, University of Kansas. Twelve paratypes labeled as follows: "Brisbane, Australia, Harvard Exp. Darlington." "Monager Lake, Perth, W.A., X-19-1931, Harvard Exp. Darlington." "Townsville, Q., March, 1932, Harvard Exp. Darlington." Most of these from the Harvard Expedition are in the Museum of Comparative Zoology, Harvard. Two paratypes, labeled "Oubatche, N. Caledonia" and determined *H. aculeata* Montr. by Distant are in British Museum.

This species is very different in color and shape from *H. aculeata* Montr. also described from New Caledonia. The latter species is greenish brown, stout, and lacks the hair tufts described for the males of this new species. This species runs to section 22 of our key to species of eastern hemisphere² and may be separated from the other two species of this section as follows:

- A. Head not conspicuously longer than the thorax.
 - B. Acetabular pits not conspicuous, less than four on middle acetabula. Males without hair tufts on sixth ventral abdominal segment,*H. gracilentata* Horvath
 - BB. Acetabular pits conspicuous, four on middle acetabula. Males with hair tufts on sixth ventral abdominal.....
.....*H. risbeci* Hungerford
- AA. Head conspicuously longer than the thorax, *H. aculeata* Montr.

² Hungerford, H. B., and Evans, N. E., *Annales Musei Nationalis Hungarici* Vol. xxviii, p. 40, 1934.

Recently I have examined five specimens forwarded for study by Mr. E. P. Van Duzee from material collected on the Mangarevan Expedition of the Bishop Museum. Four of these are labeled "Tahiti I., Vairao, March 30, 1934. Society Islands, Vairao Plateau, on stagnant pond, E. C. Zimmerman, collector." One is labeled "Tiupi Bay, Papeari, Society Islands, March 31, 1934, on mape. E. C. Zimmerman, collector." These specimens, while slightly smaller and showing some slight differences, belong to the species here described and extend its known range.

DORSAL ABDOMINAL SCENT GLANDS IN NYMPHS OF LYGÆIDÆ

BY ROBERT L. USINGER¹

The position and number of the dorsal scent glands in heteropterous nymphs was studied by Gulde (Ber. Senck. Naturf. Ges. Frankfort-am-Main, 1902:85-134, pls. 7-8). He found that the typical number and arrangement for Heteroptera was three glands opening on the anterior margins of the fourth, fifth, and sixth abdominal segments respectively and that most Lygæidæ fell within this category. *Lygæus* and *Cymus*, however, were said to have only two glands.

I have recently studied nymphs of a number of representative genera in an attempt to further define the higher groups of the Lygæidæ. The results are tabulated below:

Glands on the fifth and sixth segments only—LYGÆINÆ: Lygæini, *Lygæus*, *Oncopeltus*, *Astacops*, and *Cænocoris*; Orsillini, *Nysius*, *Neseis*, *Ortholomus*, and *Oceanides*; Metrargini, *Metrarga*. CHAULIOPINÆ: *Chauliops*. GEOCORINÆ: *Geocoris*. BLISSINÆ: *Blissus* and *Ischnodemus*.

Glands on fourth and fifth segments only—CYMINÆ: Cymini, *Cymus*, *Arphnus*, and *Ninus*.

Glands on fourth, fifth and sixth segments — all other Lygæidæ known to me including CYMINÆ: *Ischnorrhynchini*, *Ischnorrhynchus*. COLOBATHRISTINÆ: *Phænacantha*. HETEROGASTRINÆ: *Heterogaster*. PACHYGRONTHINÆ: *Oedancala*. RHYPARACHROMINÆ: *Myodocha*, *Ligyrocoris*, *Paromius*, *Orthoea*, *Eremocoris*, and *Gastrodes*.

The only possible intermediate which I know is *Chilacis typhæ* Perr. (Jordan, Stett. Ent. Zeit., 96:11, 1935) of the ARTHENEINÆ, in which the anterior gland is obsolescent.